

STATEMENT OF BASIS

as required by LAC 33:IX.2411, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0123382; AI153566; PER20070001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** H2O Systems, Inc.
WREDCO – Weyerhaeuser Real Estate & Development
845 Galvez St.
Mandeville, LA 70448
- II. PREPARED BY:** Darlene Bernard
- DATE PREPARED:** March 27, 2009
- III. PERMIT ACTION:** Initial issuance LPDES permit LA0123382, AI153566
LPDES application received: September 24, 2007
Updated LPDES application received: July 10, 2008.
- IV. FACILITY INFORMATION:**
- A. The application is for the discharge of treated sanitary wastewater from a proposed privately owned treatment works serving the WREDCO residential development and the Arlington Office Park.
 - B. The permit application does not indicate the receipt of industrial wastewater.
 - C. The facility is located in the Southwest corner of I-12 and Hwy. 1088, East of Maple Lane in Mandeville, St. Tammany Parish.
 - D. The treatment facility consists of a 300,000 GPD sequence batch reactor treatment plant with Traveling bridge Filter. Disinfection is by chlorination.

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E. Outfall 001

Discharge Location: Latitude 30°22'38" North
Longitude 90°00'23" West

Description: treated sanitary wastewater

Expected Flow:	660 homes	x 400 GPD = 264,000 GPD
	1260 employees	x 20 GPD = <u>25,200 GPD</u>
TOTAL		289,200 GPD

Type of Flow Measurement which the facility is currently using:

Combination Totalizer Meter/Continuous Recorder

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into thence into Bayou Castine, thence into Lake Pontchartrain which appears to be in subsegment 040904 of the Lake Pontchartrain Basin. However because Bayou Castine flows directly into Lake Pontchartrain and not into Bayou Cane, permit conditions for discharges in the Bayou Castine watershed are protective of the next downstream subsegment 041001, Lake Pontchartrain – West of the Hwy. 11 Bridge. Therefore, subsegment 041001 will be used for the purposes of issuing this permit. Subsegment 041001 of the Lake Pontchartrain Basin is listed on the 2006 303(d) list as impaired for fecal coliform. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by additional water quality studies and/or TMDLs.

Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit.

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The designated uses and degree of support for Segment 041001 of the Lake Pontchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 041001	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supporting	Full	Full	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 041001 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Volume 5, Part B, Water Quality Inventory respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 041001 of the Lake Pontchartrain Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish & Wildlife Service (FWS) as critical habitat for the Gulf Sturgeon and West Indian Manatee, which is listed federally as a threatened/endangered species. This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, a copy of the draft permit has been submitted to the FWS for review.

VII. HISTORIC SITES:

The discharge is from a proposed location. In accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" consultation with the Louisiana State Historic Preservation Officer is required. A letter was sent to the State Historic Preservation Officer on September 27, 2007.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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The public notice is published in a local paper of general circulation and the Office of Environmental Services Public Notice Mailing List.

For additional information contact:

Darlene Bernard
Permits Division
Department of Environmental Quality
Office of Environmental Services
PO Box 4313
Baton Rouge, LA 70821-4313

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

OUTFALL 001

Final effluent limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Daily Max.	Basis
CBOD ₅	25	10 mg/l	15 mg/l	Limits are set in accordance with the Areawide Policy for St. Tammany Parish.
TSS	37.5	15 mg/l	23 mg/l	Since there are no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia Nitrogen, NH ₃ -N	12.5	5 mg/l	10 mg/l	Limits are set in accordance with the Areawide Policy for St. Tammany Parish.

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Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.a, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Daily Maximum) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X.

ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of EDMS indicates there are no inspections on file for this facility.

B) Compliance and/or Administrative Orders

A review of EDMS revealed that there are no recent enforcement actions administered against this facility.

C) DMR Review

Since this a proposed facility, there are no DMRs on file for this facility.

XI.

ADDITIONAL INFORMATION:

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.30 MGD.

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Effluent loadings are calculated using the following example:

BOD: $8.34 \text{ gal/lb} \times 0.30 \text{ MGD} \times 10 \text{ mg/l} = 25 \text{ lb/day}$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/mo.	Grab
Total Suspended Solids	2/mo.	Grab
Fecal Coliform Bacteria	2/mo.	Grab
Ammonia Nitrogen	2/mo.	Grab
pH	2/mo.	Grab

XII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIII. REFERENCES:

Louisiana Water Quality Management Plan, Vol. 10, "Wasteload Allocations and Discharger Inventory", Louisiana Department of Environmental Quality, 1992.

Louisiana Water Quality Management Plan, Vol. 5-B, "Water Quality Inventory", Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 1999.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 23 - "The LPDES Program", Louisiana Department of Environmental Quality, 1999.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, H2O Systems, Inc. WREDCO - Weyerhaeuser Real Estate & Development September 24, 2007.